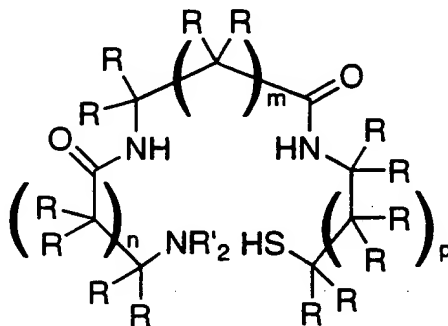


## **PROPOSED AMENDED CLAIMS**

2. (currently amended) A reagent comprising a targeting moiety covalently linked via a bivalent linking group to a metal chelator ~~having a~~ in which the metal chelator and the bivalent linking together have the formula:



wherein:

$n$ ,  $m$  and  $p$  are each independently 0 or 1,

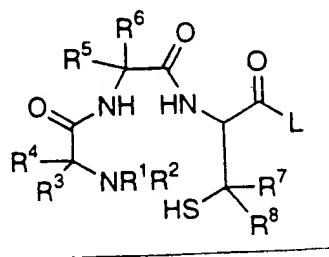
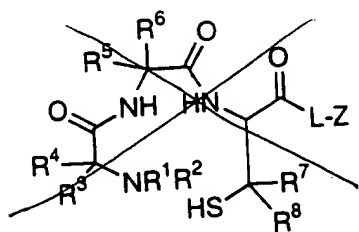
each  $\text{R}'$  is independently H, lower alkyl, hydroxyalkyl ( $\text{C}_2\text{-C}_4$ ), or alkoxyalkyl ( $\text{C}_2\text{-C}_4$ );

each  $\text{R}$  is independently H or  $\text{R}''$ , where  $\text{R}''$  is substituted or unsubstituted lower alkyl or phenyl not comprising a thiol group;

one  $\text{R}$  or  $\text{R}'$  is L, wherein when an  $\text{R}'$  is L,  $\text{-NR}'_2$  is an amine; and

L is a the bivalent linking group ~~linking the chelator to the targeting moiety~~.

3. (currently amended) A reagent according to claim 2, wherein the metal chelator ~~has a~~ and the bivalent linking group together have the formula:



wherein:

$R^1$  and  $R^2$  are each independently H, lower alkyl, hydroxyalkyl  $C_2-C_4$ ) or alkoxyalkyl ( $C_2-C_4$ );

$R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently H, substituted or unsubstituted lower alkyl or phenyl not comprising a thiol group; and

$R^7$  and  $R^8$  are each independently H, lower alkyl, lower hydroxyalkyl or lower ~~alkoxyalkyl~~; alkoxyalkyl.

~~L is a bivalent linking moiety; and~~

~~Z is a targeting moiety.~~

7. (currently amended) A reagent according to claim 2, wherein the metal chelator is selected from the group consisting of:

(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-cysteine-,

(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-isocysteine-,  
(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-homocysteine-,  
(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-penicillamine-,  
(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-2-mercaptoethylamine-,  
(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-2-mercaptopropylamine-,  
(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-2-mercapto 2-methylpropylamine-,  
(amino acid)<sup>1</sup>-(amino acid)<sup>2</sup>-3-mercaptopropylamine-,

wherein:

(amino acid) is a primary  $\alpha$ - or  $\beta$ -amino acid not comprising a thiol, and  
~~wherein the chelator is attached to a targeting moiety via a covalent bond with a carboxyl~~  
~~terminus of the chelator or via a side chain on one (amino acid).~~

10. (currently amended) A reagent according to claim 2 3, wherein the  
~~chelating group~~ metal chelator has a formula selected from the group consisting of:

Gly-Gly-Cys- and

Arg-Gly-Cys-

~~-( $\epsilon$ -Lys)-Gly-Cys~~

~~-( $\delta$ -Orn)-Gly-Cys-~~

~~-( $\gamma$ -Dab)-Gly-Cys-~~

and

~~-( $\beta$ -Dap)-Gly-Cys-~~